Fernando Resendez
Riverside CA, Las Vegas NV, Tijuana BC
Resendez.fa@gmail.com
(530) 339-0383

Education
University of California Riverside,
Riverside CA
B.S. Computer Science

Objective

Graduate from the University of California Riverside with a B.S. in Computer Science, ready to embark on a career in software engineering. Dual citizenship (Mexico and U.S.) with diverse academic and project experience in full-stack web development, databases, machine learning, NLP, embedded systems, and cybersecurity. Considering B.S.M.S. in computer science or entering workforce. Committed to making a significant impact in the field.

Skills

- Languages: Fluent in Spanish (Native), English
- Programming: C++, Python, Java, JavaScript, Go, HTML/CSS
- Databases & Data: PostgreSQL, SQL, MongoDB, Pandas, JSON for Modern C++
- Web Development: React.js, Node.js, AJAX
- GPU Computing: CUDA, cuDF
- Machine Learning & Statistics: Machine Learning Algorithms, Data Preprocessing, Statistics
- Embedded Systems & FPGA: Embedded Systems Development, FPGA Programming
- Security: Security Architecture, Penetration Testing
- Tools & Practices: VBA (Excel), AutoCAD, Battery Management Systems, Agile Methodologies, Software Development Process

Projects

- **Steam DB**
  Developed a web-based analytics dashboard leveraging GPU acceleration for enhanced data processing and query performance. Utilized RAPIDS cuDF, a GPU DataFrame library, for fast data manipulation and processing. Implemented a frontend interface that allows users to input queries, view results in a grid format, and monitor real-time performance metrics. Employed AJAX for dynamic page updates without reloading. Executed parallelized user-defined queries on the GPU, significantly reducing processing time for large datasets. Managed backend operations for data loading, query handling, and result aggregation using cuDF DataFrames.

- **Manga Collectors Website**
  User-friendly website allowing collectors to catalog their book and movie collections, including features for tracking owned items and identifying missing collection pieces. Enhanced item listings with options to mark books and movies as available for sale or trade, facilitating user interaction and exchange within the community. Created social networking features enabling users to share reviews, ratings, and recent reads/views on their profiles, similar to platforms like MyAnimeList.

- **JSON Database**
  User authentication to access corresponding collections of JSON files. Performance-focused implementation of CRUD operations in C++ using RapidJSON library. Inclusive & exclusive search/filter algorithms. Embedded object path query.